

ABSTRACT

A substrate is coated with a layer(s) or coating(s) that includes, for example, amorphous carbon in a form of diamond-like carbon (DLC). In certain embodiments, the DLC inclusive layer may be doped with at least one polar inducing dopant (e.g.,

- 5 Boron, Nitrogen, and/or any other suitable polar inducing dopant) in order to make the layer more polar and thus more hydrophilic so as to have a lower contact angle θ . In other embodiments, where such doping is optional, the DLC may be exposed to ultraviolet (UV) radiation in a manner sufficient to cause the contact angle θ of the DLC layer to drop into a hydrophilic range (e.g., less than or equal to about 20 degrees).